**Table S2: Primers used in this study**

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| --- | --- | --- |
| Primer | Sequence (5’ -> 3’) | Purpose |
| ***∆cupB3*** |  |  |
| 950 | GCGTCGAATTGATTGTCGAT | Deletion of *cupB3* in PAO1∆∆, UpFw  |
| 951 | CGTCGTCTCAACGGCCACCGCGGGCGC | Deletion of *cupB3* in PAO1∆∆, UpRe |
| 952 | GTGGCCGTTGAGACGACGCCTCCCGTC | Deletion of *cupB3* in PAO1∆∆, DwFw |
| 953 | GACGGAACAGGAGCT TCATCC | Deletion of *cupB3* in PAO1∆∆, DwRe |
| 954 | AGGTTCCCTTCAGTGTCACG | external primer to proof deletion of *cupB3* in PAO1∆∆, Fw |
| 955 | GTGATAGGGACTGCGGTTGT | external primer to proof deletion of *cupB3* in PAO1∆∆, Re |
| ***∆tpsB4*** |  |  |
| 976 | CTTAAACCGAGAACGGCATT | Deletion of *tpsB4* in PAO1∆∆, UpFw  |
| 977 | TCAGAAGTACATTCCCATGAGGCCCGT | Deletion of *tpsB4* in PAO1∆∆, UpRe |
| 978 | ATGGGAATGTACTTCTGAGCAAGCTCC | Deletion of *tpsB4* in PAO1∆∆, DwFw |
| 979 | CAGGGTGGAAGCCACCAG | Deletion of *tpsB4* in PAO1∆∆, DwRe |
| 980 | GCCAATCGATCGAGATGAAG | external primer to proof deletion of *tpsB4* in PAO1∆∆, Fw |
| 981 | CCGTCGAAATTGAGGTTGAT | external primer to proof deletion of *tpsB4* in PAO1∆∆, Re |
| **qPCR** |  |  |
| *cupB1*up | GCGCCGACCCATTTCAC | qPCR |
| *cupB1*down | GCGATGGAAACCTTCTTGTCA | qPCR |
| *cupA1* F | GCGGCAAACACTATCACATTCA | qPCR |
| *cupA1* R | CCGGTACGCTGTCGAGGAT | qPCR |
| *tpsA4*fw | GGCGCCACGGTCGTT | PA4541 (*lepA*) |
| *tpsA4*rev | TGAACTCGTTCCAATTGGTGAT | PA4541 (*lepA*) |
| qTps1\_Fw | ACCATTTCCGCGACTACAAC | PA2462 |
| qTps1\_Rv | ACCTGGTTGAGGATCACCTG | PA2462 |
| qTps2\_Fw | GGAAGGTGCTGAAAGACAGC | PA0041 |
| qTPS2\_RV | GGTCTACCGTGACCTTTCCA | PA0041 |
| qTPS3\_Fw | GACGCCTACGTCAACAGTCA | PA4625 (*cdrA*) |
| qTPS3\_Rv | GTTACCGGTGATCGCGTACT | PA4625 (*cdrA*) |
| qTPS5\_Fw2 | CCGTCAGGTCATCCTGTCTT | PA0690 |
| qTPS5\_Rv2 | TAGAGGGATCTGGCATCCAC | PA0690 |
| *rpoD* Fwd | AGGCCGTGAGCAGGGATAC | qPCR, housekeeping gene |
| *rpoD* Rev | TCC CCA TGT CGT TGA TCA TG | qPCR, housekeeping gene |
| **Complementation** |  |  |
| 1315 | AAA GAA TTC CGG AAT CGC GCT CAG CCG C | cloning of *tpsB4* and its promoter into miniCTX |
| 1316 | TTT ACT AGT CGG GAG CTT GCT CAG AAG TA | cloning of *tpsB4* and its promoter into miniCTX |
| 812 | GAA TAG GTC GCG GGG TTT | cloning of cupB5 and its RBS into pBBR-MCS4 |
| 813 | CCA CAC TCC AGG CGA GAG | cloning of cupB5 and its RBS into pBBR-MCS4 |
| **Point mutations and deletions** |  |  |
| 2039 | GTTCCATCCTGGATTGCCGCTGCCGGGAGGAAGGC | introduction of an double point mutation in TpsB4 Q107A E108A (c358g\_a359c\_a362c\_antisense) |
| 2040 | GCCTTCCTCCCGGCAGCGGCAATCCAGGATGGAAC | introduction of an double point mutation in TpsB4 Q107A E108A (c358g\_a359c\_a362c) |
| 1819 | ttt cct gtg ccg cga gga agg cgc g | introduction of an double point mutation in TpsB4 H82W P105A (c352g\_antisense) |
| 1823 | ccg cgg tcc agt ggt cgg agc tgt ggc gtg cgc ttc | introduction of an double point mutation in TpsB4 G154 E158W (g499t\_c501g\_g511t\_a512g) |
| 1824 | gaa gcg cac gcc aca gct ccg acc act gga ccg cgg | introduction of an double point mutation in TpsB4 G154 E158W (g499t\_c501g\_g511t\_a512g\_antisense) |
| 1825 | ggc ctc cag gcc gca ggc ccc ctg ctg ccg g | introduction of an double point mutation in TpsB4 K173A T175P (a556g\_a557c\_a562c) |
| 1826 | ccg gca gca ggg ggc ctg cgg cct gga ggc c | introduction of an double point mutation in TpsB4 K173A T175P (a556g\_a557c\_a562c\_antisense) |
| 1827 | cag cag gcg tcg agc gtc gaa ctg cct | introduction of an double point mutation in TpsB4 D61A D149A (a221c\_antisense) |
| 1828 | ctg gac cgc ggt agc tcg ttc gag tgc | introduction of an double point mutation in TpsB4 61A D149A (a485c\_antisense) |
| 1829 | agg cag ttc gac gct cga cgc ctg ctg | introduction of an double point mutation in TpsB4 D61A D149A (a221c) |
| 1830 | gca ctc gaa cga gct acc gcg gtc cag | introduction of an double point mutation in TpsB4 D61A D149A (a485c) |
| 1802 | gaa gcc acc agg ccg ccc caa ttc cac tgg gcg ccg cga ccg a | introduction of an double point mutation in **CupB5V97W,V99W (g448t\_t449g\_c450g\_g454t\_t455g\_ c456g\_antisense)** |
| 1803 | tcg gtc gcg gcg ccc agt gga att ggg gcg gcc tgg tgg ctt c | introduction of an double point mutation in **CupB5V97W,V99W (g448t\_t449g\_c450g\_g454t\_t455g\_****c456g)** |
| 1804 | cag gtc ttc ctg gtc gcc gcc aac ggc gtg ctc t | introduction of an double point mutation in **CupB5N85A, P86A (a412g\_a413c\_c415g)** |
| 1805 | aga gca cgc cgt tgg cgg cga cca gga aga cct g | introduction of an double point mutation in **CupB5N85A, P86A (a412g\_a413c\_c415g\_antisense)** |
| 2001 | CGG CAC CAA GGC CGC CGA TAT CCA GGG C | Introduction of S69A point mutation in CupB5 (a364g\_g365c) |
| 2002 | GCC CTG GAT ATC GGC GGC CTT GGT GCC G | Introduction of S69A point mutation in CupB5 (a364g\_g365c\_antisense) |
| 2206 | TCCTGCCGTAGCGCTCTTCGGCAGCC | Deletion of POTRA domain 1 (del574-813-antisense) |
| 2207 | GGCTGCCGAAGAGCGCTACGGCAGGA | Deletion of POTRA domain 1 antisence (del574-813) |
| **Structural work** |  |  |
| B4-1 | GACGACGACAAGATGGCCCCGGATGCGGGG | *tpsB41-194* expression |
| B4-2 | GAGGAGAAGCCCGGTTAGCGGGCCTCGACGCG | *tpsB41-194*, *tpsB442-194* and *tpsB4122-194* expression |
| B4-3 | GACGACGACAAGATGGGCGGCCCGACGGTG | *tpsB442-121* and *tpsB442-194* expression |
| B4-4 | GAGGAGAAGCCCGGTTATCCCTCGAGCACTTCGATGC | *tpsB442-121* expression |
| B4-5 | GAGGAGAAGCCCGGTTAGCGGGCCTCGACGCG | *tpsB4122-194* expression |
| A4-1 | GACGACGACAAGATGCTGCCCAGCGGCGCC | *tpsA41-242* expression |
| A4-2 | GAGGAGAAGCCCGGTTAGTCGAGGACGATGCGTCC | *tpsA41-242* expression |
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